

Abstract

An electronic adjustable control pedal assembly for a motor vehicle including a carrier, a guide rod adapted to be secured to the dash panel of the vehicle and mounting the carrier for fore and aft movement along the guide rod, a power drive operative to move the carrier along the guide rod, a pedal arm pivotally mounted on the carrier, a potentiometer mounted on the carrier and operative to generate an output electrical signal proportioned to the extent of pivotal movement of the pedal arm, and a resistance assembly to provide feedback or "feel" to the operator. The resistance assembly includes an annular friction surface defined on the carrier, a sleeve positioned over the friction surface, and a coil spring encircling the sleeve and arranged to be tightened in response to pivotal movement of the pedal arm to squeeze the sleeve against the friction surface and generate a friction resistance force. The friction resistance force adds to the torsional resistance force of the spring during application of the pedal and subtracts from the torsional resistance force of the spring upon release of the pedal, whereby to create a hysteresis effect.